

Title (en)
Measurement device, including a PIEZOELECTRIC RESONATOR ELEMENT OF CRYSTALLOGRAPHIC POINT GROUP 32

Title (de)
Messanordnung, beinhaltend ein PIEZOELEKTRISCHES RESONATORELEMENT DER KRISTALLOGRAPHISCHEN PUNKTGRUPPE 32

Title (fr)
Dispositif de mesure, comprenant un ELEMENT RESONATEUR PIEZO-ELECTRIQUE DU GROUPE PONCTUEL CRISTALLOGRAPHIQUE 32

Publication
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Application
EP 02750626 A 20020528

Priority

- AT 0200160 W 20020528
- AT 8482001 A 20010531

Abstract (en)
[origin: US7053533B2] A piezoelectric resonator element of crystallographic point group 32, which can be operated as a thickness shear resonator contacting a carrier medium includes a singly rotated Y-cut (S 1 ,S 2) that is essentially rotated through an angle phi about the crystallographic x-axis, which differs from crystal cuts that are temperature-compensated in air or vacuum, wherein the cut has a negative temperature coefficient of the resonance frequency f(T) in a predetermined temperature range, preferably between 10° C. and 40° C., when there is no contact with the carrier medium, while the value of the linear temperature coefficient a of resonance frequency in the same temperature range is less than 1 ppm/° C., preferably less than 0.5 ppm/° C. when the resonator is in contact with the carrier medium. The resonator element (1) can additionally be provided with at least one layer sensitive to the parameter to be measured.

IPC 8 full level
G01N 5/02 (2006.01); **H03H 9/17** (2006.01); **G01N 27/00** (2006.01); **H03H 9/19** (2006.01); **H04R 17/10** (2006.01)

CPC (source: EP US)
G01N 29/036 (2013.01 - EP US); **H03H 9/02039** (2013.01 - EP US); **G01N 2291/0256** (2013.01 - EP US)

Citation (examination)

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